

System, Method, and Computer Program Product for Responding to Natural Language Queries

Abstract

5 A system, method, and computer-program product is provided for
answering a natural language query in an automated manner. The answer is drawn
from a body of textual information. Concepts in the body of textual information
in a domain are expressed as a set of semantic headers. The semantic headers
represent formalizations of select concepts in the information domain, and are
created on the basis of expected queries. Moreover, queries are reduced to a
10 canonical form. The answering process comprises the step of matching the
formalized query, or translation formula, to one or more semantic headers. The
pieces of text which correspond to those semantic headers are returned to the user
as answers. The generality of a translation formula can be controlled. Steps can
be taken to make the translation formula more general or less general. A user can
15 clarify a translation formula if necessary. If the user provides a term that is not
immediately recognized, then the user will be presented with a number of options.
Each option represents one way in which the term in question can be clarified.
The invention can then incorporate the new term into the translation formula and
attempt to match one or more appropriate semantic headers. In addition, the
20 domain can be expanded by parties other than the provider of the domain.

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